

# Argo-España

*Parte de la estrategia global de observación del océano*



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## Report on Argo float deployment of *RADPROF0818* cruise

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ARGO ESPAÑA – IEO / 18 – 47

Argo float deployment for  
**WMO 3902127**

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A. González-Santana - P. Vélez-Belchí  
Instituto Español de Oceanografía

## 1. Deployment design

Following the Argo program goals, the float density criteria demands a coverage distribution of  $3^\circ \times 3^\circ$  grid cells (Fig. 1). In order to maintain the global Argo network coverage and taking in account the current distribution of the Argo floats, Euro Argo – ERIC and Argo España planned the deployment of an NKE Deep Arvor float in cooperation with the IEO (Spanish Oceanographic Institution - Gijón based), under the framework of *AtlantOS* project. Also, this deployment contributes to extend the deep Argo network. Since there are more than 4000 meters of depth in the Galician Bank (Northern Atlantic Ocean), this location was selected for the deployment purposes.

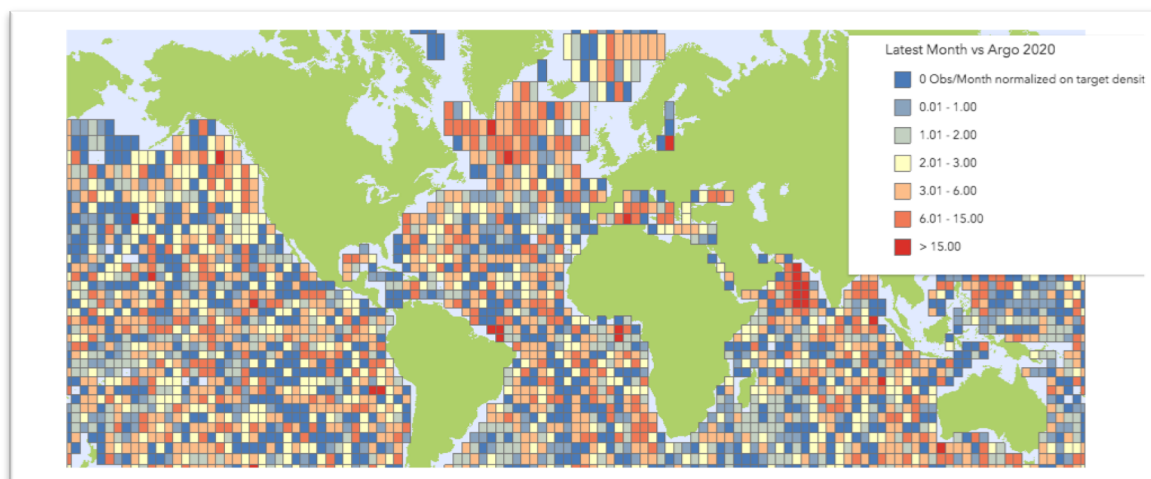


Figure 1. Density of Argo observations in the 2018 May vs the Argo 2020 challenge.

As PI of the *RADPROF0818* cruise, César González – Pola Muñiz was requested to support the Argo deployment planning. Rocío Fernández Graña was in charge of the float deployment. The R/V Ramón Margalef was planned to carry out the research between  $42^\circ$  N to  $44^\circ$  N and  $16^\circ$  W to  $8^\circ$  W (Fig.2). Since the station number 134 was deeper than 4000 meters, it was selected for the float deployment.

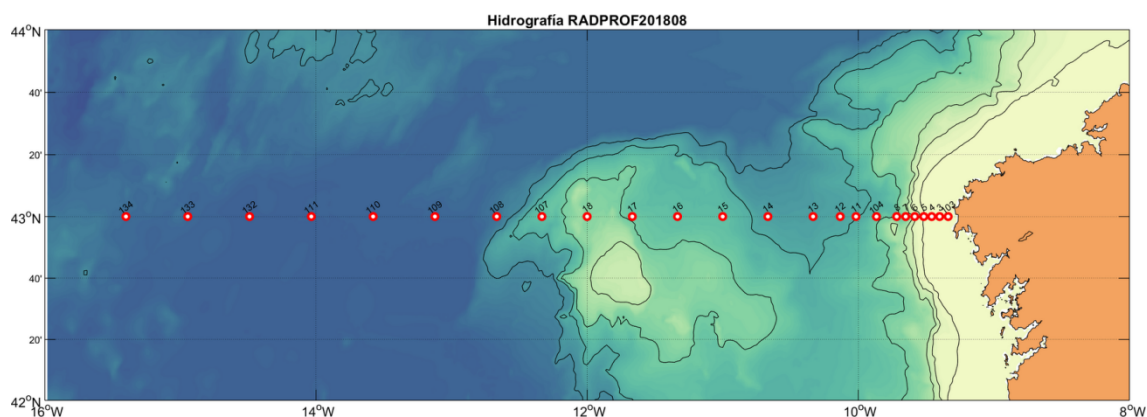


Figure 2. Stations distribution of the *RADPROF0818* cruise (source: IEO Gijón).

## 2. Deployment data

Information of the float deployment is showed in this paragraph.

- a. **WMO 3902127.** The following table contains all the data of the WMO 3902127 deployment during *RADPROF0818* cruise. No troubled issues during the deployment were reported. CTD cast is available at the deployment location. All the information was registered at the Argo Information Center database. The data is free and publicly available through the Argo data stream:

<http://www.oceanografia.es/argo/datos/ArgoEsGraficos/3902127.html>

DATE AND TIME	2018 - 08 - 25 / 13:07 GMT
DEPLOYMENT LOCATION	43° 00.013' N 15° 24.055' E
DEPLOYMENT PLATFORM	R/V Ramón Margalef
CRUISE ID	<i>RADPROF0818</i>
FLOAT OWNER	EURO ARGO - ERIC
PLATFORM TYPE	NKE DEEP ARVOR
SERIAL NUMBER	AD1726-16FR102
TRANSMISSION SYSTEM	IRIDIUM
PARKING DEPTH (m)	2500
PROFILE FEPTH (m)	3700
DEPLOYMENT DEPTH (m)	4970
WEATHER CONDITIONS	<i>Ripples without crests</i>
DEPLOYMENT OPERATOR	Rocío Fernández Graña

Table 1. WMO 3902127 information deployment.

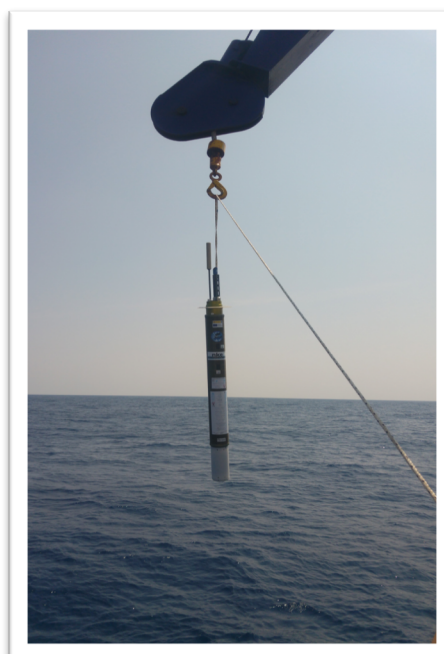


Figure 3 (a) and Figure 3 (b). R/V Scientific crew and Ramón Margalef's staff during the deployment maneuver of the float WMO 3902127 (a - source: IEO Gijón). Float deployment manoeuvre (b - source: IEO Gijón)

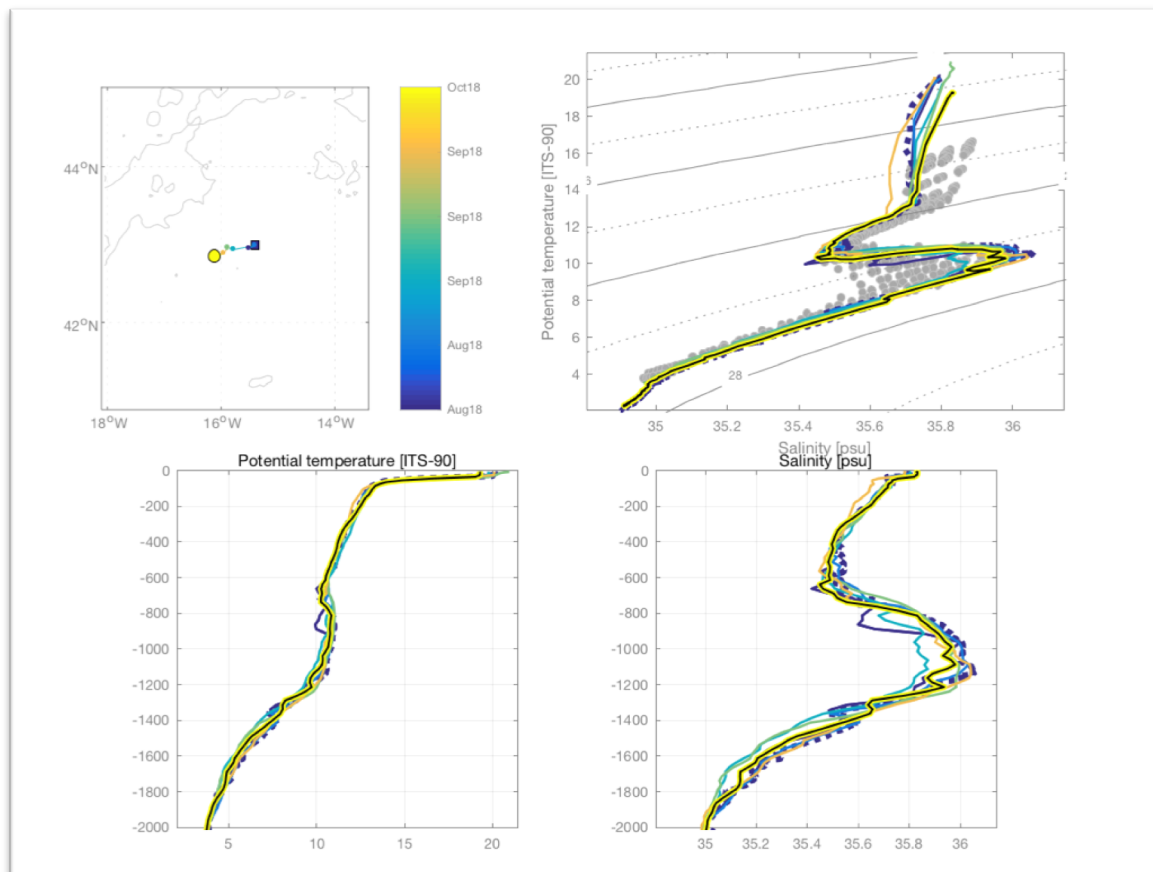


Figure 4. The trajectory of the float since the deployment is showed in the upper left side of the picture. T-S diagram of the data collected by WMO 3902127 is showed in the upper right side of the picture. The grey points are the climatology of the area. The black line is the last profile carried out by the float. The dark blue dashed line describes the CTD cast carried out from the R/V Ramón Margalef. Potential Temperature and Salinity profiles are also shown in the lower side on the picture.

### **3. Float configuration**

“PM” parameters were set according to the scientific requirements and the oceanographic area of study (Galician Bank). In the first instance, the float dived up to 3700 m depth carrying of 240 hours, with a parking depth of 2500 m.

### **4. Acknowledgements**

Argo España would like to thank César González – Pola Muñiz (IEO), Rocío Fernández Graña (IEO) and the rest of the crew of the R/V Ramón Margalef, who cooperated for the success of the mission.